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FISHER'S
NATIONAL MAGAZINE

AND

INDUSTRIAL RECORD.

*Self-dependence and Self-improvement—
The first right, and the first duty of every nation.*
JOHN QUINCY ADAMS.

VOL. I.

FOR ALPHABETICAL INDEX, SEE END OF VOL. 2d.

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NO. I.

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VOL. I.

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HISTORICAL SKETCH

OF

CONTINENTAL PAPER MONEY.

IN this brief History of Continental Paper Money, I shall endeavour to trace its origin, rapid increase and downfall; the cause of its depreciation; the honest intention of Congress to redeem it; set forth the mode suggested by that body for its full payment; and incidentally show its powerful, if not indispensable agency in gaining our Independence.

I propose, moreover, to demonstrate, that the non-redemption of that paper money operated upon the people of that day, by its gradual depreciation, [until its final extinction,] as nothing more than a moderate tax; that no sentiment of repudiation was ever entertained by Congress; that many examples, before and since, both in Europe and America, may be alleged, in extenuation of the neglect this paper met with; and I shall conclude with a short review [by a foreign pen principally] of the temper of the people during the Revolution; the effect this unsettled currency, for so long a period, had on their morals; and attempt a comparison between the Americans of that day and of this.

On the 10th of May, 1775, immediately after the battle of Lexington, Congress prepared its first emission of Continental Colonial Bills, and on the 22d of June, as soon as the news of the battle of Bunker Hill reached Philadelphia, two millions of Spanish milled dollars, [so called,] purporting to be for the defence of America, were put in circulation; the confederated Colonies standing pledged for their redemption.

Congress appointed twenty-eight citizens of Philadelphia to sign and number the bills: the names of two being necessary to each bill. Each gentleman was allowed, out of the Continental treasury, one dollar and one-third for each and every thousand bills signed and numbered by him. At foot will be found the names of the persons entrusted with this duty.*

Contracts were made with printers for proper paper, and for printing them. To administer these paper funds, joint treasurers were appointed at a salary of five hundred dollars; and the number of inhabitants of all ages, including negroes and mulattoes, in each Colony, was taken, by approximation of course, in order to levy the ways and means to pay the bills whenever they should be presented at the treasury. They were taken for taxes and cancelled; and in order to keep up their credit, the treasurers were directed, whenever they happened to receive silver or

* Luke Morris,
Samuel Meredith,
Judah Foulke,
Samuel Morris,
Frederick Kuhl,
Robert S. Jones,
Thomas Combe,

Ellis Lewis,
John Mease,
Thomas Lawrence,
Daniel Clymer,
John M. Nesbit,
Thomas Barclay,
John Bayard,

Wm. Craig,
Thomas Bartow,
John Shee,
Isaac Hazlehurst,
Robert Morris,
Anthony Morris,
Mordecai Lewis,

George Mifflin,
Robt. Tuckniss,
Andrew Bunner,
William Jackson,
Jos. Sims,
James Milligan,
James Reed.

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gold, to advertise their readiness to pay the same for Continental Bills to all persons requiring an exchange.

In November of the same year, three millions came out in bills of various value, as low as one-third, one-half, and two-thirds of a dollar, and from one dollar to eighty. The Colonies were called upon to sink *proportionally* a sum of three millions. In fixing the proportion to redeem that amount, Virginia was rated the highest, and stood charged with - - - - - \$496,000
Massachusetts came next, at - - - - - 434,000
Pennsylvania, third, at - - - - - 372,000
Maryland, fourth, at - - - - - 310,000
and in the fifth class there are four Colonies, all rated alike; namely, Connecticut, North Carolina, South Carolina, and New York!
Each of these rated at - - - - - \$248,000

By the foregoing scale we find the relative wealth, by Congressional estimation, of these Colonies, at the beginning of the war, sixty-eight years ago. It is worthy of remark, that the State of New York, the capital of which was then unoccupied by the enemy, is placed at little more than half of Massachusetts, while Boston was in the possession of the British.

On the occasion of a subsequent recommendation of a new tax, when the city of New York was held by the British, Congress assessed the State of New York at one-fourth of Virginia and Massachusetts, and at a less sum than New Jersey. The city of New York, at that period, was a town of small dimensions and moderate commerce.

In the month of June of 1787, on my return from a residence of a few years in France, I arrived at that city, and found it a neglected place, built chiefly of wood, and in a state of prostration and decay. A dozen vessels in port; Broadway, from Trinity Church inclusive down to the Battery, in ruins, owing to a fire that had occurred when the city was occupied by the enemy, during the latter end of the war. The ruined walls of the burnt houses standing on both sides of the way, testifying to the poverty of the place, five years after the conflagration: for although the war had ceased during that period, and the enemy had departed, no attempt had been made to rebuild them. In short, there was silence and inactivity every where; and the whole population was very little over twenty thousand.

One can scarcely realize her rapid increase from so small a condition, at so recent a period, to her size and importance in the present day, when she may be classed for population, wealth and trade, among the chief cities of the world.

Before the close of the year 1775, a census of the inhabitants was ordered by Congress for a due apportionment of taxes; and on the last day but one of that year, it was resolved that the silver and gold in the treasury be counted, and forwarded to the northern army under a guard, and that the treasurers be empowered to employ a broker to collect silver and gold in exchange for Continental Paper.

Early the next year, difficulties began to arise. The bills were sometimes refused; confidence was weakened, and depreciation followed. Then came from Congress and the committees of safety, threatening resolutions denouncing the refractory. It was the first serious emergency, and required prompt relief. Patriotic men who had the means, stepped

forward to redeem the bills at par; some of whom exchanged as much as a thousand pounds in silver for a like sum in paper. When Congress, hastening to propose a remedy, "Resolved, that if any person shall hereafter be so lost to all virtue and regard for his country, as to refuse to receive the bills in payment, or obstruct and discourage the currency or circulation thereof, and shall be duly convicted by the committee of safety of the district, such person shall be deemed, published and treated as an enemy of the country, and precluded from all trade or intercourse with the inhabitants of these colonies."

On the 26th of December, 1776, General Washington was authorized to arrest and confine those who rejected the Continental currency, and make a return of their names to the authorities of the States in which they resided. The council of safety of Pennsylvania was invited to take most vigorous and speedy steps for punishing all such as refused the bills, and the General was directed to give aid to the council: meantime Virginia and the other States were besought to furnish all the gold and silver they could procure, and take paper in exchange.

In May, 1776, five millions were again emitted, and in the autumn, five millions more. Although some specie was imported, it could not avail against such profuse issues. Credit, already on the wane, continued to sink. The States did not respond to the call for aid; the power of taxing was virtually denied, by its shackled conditions in the articles of confederation, and paper money continuing to depreciate, an attempt was made, in imitation of the mother country, to raise a revenue by the establishment of a national lottery. The trial was a failure; for the scheme, which was to sell tickets for specie, at twenty dollars, and pay the prizes in treasury notes, bearing four per cent. interest, did not induce many to adventure; so that no other resource was left for the prosecution of the war, than a fresh emission of paper money. But the people refusing to sell their produce for it at par, Washington was authorized to seize the supplies for the army wherever he could find them, and imprison those who rejected the bills offered in payment.

The years 1776 and 1777 proved as unpropitious to the paper credit as the preceding; and very strong measures were resorted to for the purpose of fixing, by constraint, a value on the currency; of compelling the people to receive as substance, a mere shadow; of putting the stamp of reality on a fiction: measures which were at variance with justice and expediency, and which operated on the people with the harshness of despotism. The resolutions which followed will show the bad temper of the great men who ruled at the head of affairs, and their momentary forgetfulness of the rights of their constituents.

On the 3d of December, 1777, Congress recommended to the legislative authorities of the respective States to enact laws, requiring persons possessed of bills of credit, struck under the sanction and authority of the King of Great Britain, forthwith to deliver the same to be exchanged for Continental Money: and those which shall not be so delivered in, shall thenceforth become utterly irredeemable.

Again they "Resolved (in 1777), that the Continental Money ought to be supported, at the full value expressed in the respective bills, by the people of these States, who stand bound to redeem the same according to the like value, and to guard against the pernicious artifices of the enemies of liberty, who impair the credit of said bills by raising the nomina

value of gold and silver." It was further "Resolved, that all bills of credit emitted by Congress ought to pass current in all payments, trade and dealings, in these States, and be deemed in value equal to the *Spanish dollar*; and it is recommended to the Legislatures of these States, to pass laws inflicting forfeitures and other penalties on all who do not sell their lands, houses, goods, &c., for Continental Bills at *specie value*; and that the said Legislatures be requested to enact laws to make the bills of credit issued by Congress *a lawful tender* in payment of public and private debts; and a refusal thereof, *an extinguishment of such debts*: that debts payable in sterling money be discharged with continental dollars at four shillings and sixpence sterling per dollar [that is to say, at par], and that in discharge of all other debts and contracts, Continental dollars pass at the rate of a Spanish milled dollar."

Buoyed up by these enactments, Congress sent forth, on the 22d of May, five millions of dollars of various denominations, decorated with new emblems, escutcheons and secret marks, to prevent counterfeiting. And this emission was followed up by another of one million, and on the 7th of November by one million more.

The pernicious legislation just adverted to could result in nothing but the ruin of the confiding patriot, while it enabled the unprincipled debtor to pay his debts at an enormous discount. That result soon became evident, and to a degree so alarming, that Congress earnestly besought the States to repeal their iniquitous tender-laws; those very laws which had been so pressing recommended by that body itself not many months before.

The whole amount of paper money issued during the war, was about three hundred millions of dollars; but the collections made by the Continental government in various ways, cancelled, from time to time, the one-third: so that the maximum of circulation, at no one period, exceeded two hundred millions. Nor did it reach that sum, until its depreciation had compelled Congress to take it in, and pay it out, at the rate of forty paper dollars for one in hard money.

It kept nearly at par for the first year, during which period only nine millions were issued; an amount about equal to the specie then held in all the Colonies. And when used in that moderate way, it passed with very little depreciation; but soon after, when the emission increased rapidly, it fell proportionably in value, going on from year to year, in its downward course, until Congress, as we have seen above, fixed the scale, by law, at forty for one. But million following million in quick succession, lessened its exchangeable rate, from day to day, to the agio of five hundred, and then one thousand, for one, when it ceased to circulate.

Congress had exchanged some of the notes at forty for one, by giving the holder loan office certificates at par, and offered to redeem the whole in the same way, at one thousand for one, when they had sunk to that price. But those very loan office, and other certificates of debt, bore in market no higher price than two shillings and sixpence on the pound, or eight dollars for one; so that very few availed themselves of that offer.

Those public securities bearing various names, such as loan office certificates, depreciation certificates, final settlements, &c., were given to the public creditors, who had demands for moneys lent, supplies furnished, services rendered, &c., and constituted the Congressional debt at the end of the war. They consisted of obligations or bonds, bearing

interest at six per cent., and were entirely distinct in character and tenor from the money bills, which bore *no interest*, and were used altogether as currency. The value of these certificates in market, as I have already said, was not more than seven or eight for one, until the adoption of the present Constitution in 1789, when they were funded, and rose to par.

In the Journal of Congress of the 29th April, 1783, an estimate of the whole revolutionary debt is given [except the paper money], and it stands thus:—

1. Foreign debt to France and Holland, - - -	\$7,885,085 00
2. Domestic debt, in various certificates, as above,	34,115,290 06
	<hr/>
	\$42,000,375 00

The foreign, bearing interest at four and five per cent., and amounting to - - - - -	\$369,038 06
The domestic at six per cent., and amounting to - - -	2,046,917 04
	<hr/>
	\$2,415,956 10

When the Constitution, by which we are now governed, went into operation, Alexander Hamilton, the first Secretary of the Treasury, added to the domestic debt the claims held by several States against the national exchequer, to the amount of twenty-one million five hundred thousand dollars, and then funded the whole, by putting a part on interest at six per cent immediately; postponing a part, without interest, for ten years, and then to bear six per cent.; and the remainder on immediate interest at three per cent. The arrears of six years' interest were added, which, with some other unsettled claims, made the whole debt amount to ninety-four millions.

Accustomed as we are, at the present day, to the large expenditure of the federal government, we may well be astonished at the economy of the first year of Washington's administration, when the civil list was estimated at two hundred and eight thousand dollars, and the war department at only one hundred and thirty-seven thousand, including even the Indian supplies.

The establishment of a revenue to pay the interest on the debt, in 1789, was equivalent to a capital (by bringing that debt to par) of nearly one hundred millions, the greater part of which was held by our own citizens: this was the cause of immediate prosperity, and of the brilliant career which continued for many years after. Every dollar of this aggregate debt was, as we all know, most honourably paid.

I have deviated from the main subject, for a moment, in order to give a brief exposition of the first national debt, under the funding system of a celebrated financier, and now return to the consideration of the unredeemed paper money.

The illustrious statesmen of the revolutionary Congress had the best disposition to pay that currency, and they professed to have the ability so to do. They felt themselves bound in honour to discharge, at their full value, bills emitted by themselves, and bearing on their face a solemn engagement to redeem them in Spanish dollars, or the value thereof, in gold or silver. To do this, however, required a season of tranquillity; but the country was invaded by land and by water; it required power to

levy taxes, and this was denied them; it required the industry of peaceful times to enable the people to contribute; but the war, in constant activity, baffled every attempt at regular employment. Congress had not even a choice of evils; they had no alternative. One source of revenue only was at their command, and that was the emission of bills of credit. The very necessity of the case forced them to misuse and abuse it; for even in its depreciated condition, paper money offered facilities so attractive, that the great men at the head of affairs, always intending to pay them, were glad to find the people willing, at the current exchange, to receive that which could be so easily and liberally supplied.

"Who," said a member during a debate upon this subject, "will consent to load his constituents with taxes, when we can send to our printer and get a wagon load of money, and pay for the whole with a quire of paper?" And with wagon loads thus cheaply obtained, they carried on the campaigns of the two years, 1778 and 1779, keeping an army of thirty or forty thousand men in the field, issuing paper to the amount of sixty-three millions for the former year, and seventy-two millions for the latter; and thus, with an active printing press, and a few commissioners hired by the day or by the job to sign the bills, ways and means were found to defray almost the whole expense of the civil list, the army and navy, and contingencies. There was, indeed, a little hard money passing through the treasury. The exact sums received in both those years having been officially reported to Congress, stand recorded on their journals. If it were not attested in this authentic shape, it would be difficult to believe it. Marvellous as it may appear, the aggregate of gold and silver received into the treasury for the year 1778 was only seventy-eight thousand six hundred and sixty-six dollars [\$78,666]; and for the year 1779 the sum of seventy-three thousand dollars [\$73,000]; so that the whole machinery of government was carried on, for *two entire years*, as far as concerned the agency of specie, with one hundred and fifty-one thousand six hundred and sixty-six dollars!! So small an expenditure, in *metallic currency*, shows the powerful agency of paper in the belligerent operations at that critical period; performing as it did, in spite of counterfeits and depreciation, the office of hard money.

This handful of solid coin, which, in gold, would weigh only seven hundred pounds, and might be put into a wheelbarrow, was all that came, as we have seen, into the public chest for two years; and we may not be surprised at government being so chary of it, as to refuse General Washington's demand of a small share, to pay a *part* of the bounty to enlisted soldiers. In denying him, they declared that the precious metals must be kept for the commissaries of prisoners, to be used where paper would not pass.

Paper money continued to be the chief instrument in the hands of government. The press was kept in perpetual motion. Printers who laboured at it obtained an exemption from militia duty. Ragged and torn notes were replaced, and bills of every denomination were issued in millions.

The form of those bills, as settled by Congress, was thus :

CONTINENTAL CURRENCY.

No. ———

Dollar ———

This bill entitles the bearer to receive ——— Spanish milled dollars, or the value thereof in gold or silver, according to a resolution of Congress.

On each bill was stamped a rudely printed emblem, with a Latin motto, amounting in number to twenty. Those devices and pithy sentences are said to have been composed by Benjamin Franklin and Charles Thompson, aided by the Latinists of the Continental Congress.

Those mottoes, placed opposite to each denomination of the bills, are as follows:—

Denomination of the Bills.		Denomination of the Bills.	
1 Dollar.	Depressa Resurgit.	40 Dollars.	The only English motto—
2 “	Tribulatio Ditat.		“Confederation,” except
3 “	Exitus in dubio est.		on the bills of a fractional
4 “	Aut Mors, aut vita Decora.		part of a dollar.
5 “	Sustine vel Abstine.	45 “	Sic floret Respublica.
6 “	Perseverando.	50 “	Perennis.
7 “	Seranabit.	55 “	Post Nublia Phœbus.
8 “	Majora Minoribus consonant.	60 “	Deus regnat Exultat Terra.
20 “	Vi concitata.	65 “	Fiat Justitia.
30 “	Si recte facies.	70 “	Quadrennium Sustinuit, Vim
30 “	(On the reverse) cessante vento conquiescemus.		Procellarum.
35 “	Hinc opes.	80 “	Florescebit et in Secula Se- culorum.

Eighty was the highest denomination issued.

On the small bills of one-third, one-half, and two thirds of a dollar, “Fugio” was the Latin motto, and in English, “mind your business.”

Decorated with these fine maxims, Congress sent forth this *cheap* defence of the nation, with a recommendation to the Legislatures of the States not only to make the bills a lawful tender in payment of public and private debts, but in case of refusal to receive them, to declare such refusal *an extinguishment of the debt*.

They were requested, likewise, to stop the emission of their own *State* paper, and to adopt the Congressional currency for a circulating medium.

Conventions, to consist of four or five adjacent States, were, moreover, designated by Congress as necessary, in order to regulate the price of labour, manufactures, country produce, and all imported goods, as well as the charges of inn-holders; and to enact suitable laws to empower the commissaries of the army to take from forestallers, engrossers and others, who might have a larger supply than their families required, all such articles for government use as were wanted, and at such cost as the law thus enacted should fix. The price of provisions, and of every thing needed by the army, was to be settled also in this arbitrary way: and all for the purpose, say Congress, of checking “a spirit of sharpening and extortion, and the rapid and excessive rise of every thing.” Amid all these coercive regulations, it could not but be obvious to every thinking man, that the only cause of the derangement of the prices was the excessive issue of paper.

In the year 1778, a very laudable effort was made to create a sinking fund, by establishing an annual tax of six millions of dollars for eighteen years. A committee was directed to prepare a plan that should specifically appropriate that sum to the extinguishment of the Continental debt. Yet very little confidence was placed in these good intentions, if we may judge by the rapid depreciation at this period; which, indeed, was such that Congress could no longer force the circulation at prescribed rates, in reference to metallic money; and it was, therefore, resolved by that body,

on the 8th of October, 1778, "that all limitation of prices of silver and gold be taken off."

The circular to the States, when the tax for the year 1779 was called for, is a very moving address, replete with ardent feeling, and contains, among other matter, the following in relation to paper money:—

"Being in the outset at war, without arms or ammunition, without military discipline or permanent finances, without an established government or allies, enfeebled by habitual attachments to our very enemies, we were precipitated into all the expensive operations incident to a state of war, with one of the most formidable nations on earth—we, from necessity, embraced the expedient of emitting paper money on the faith of the United States; an expedient which had often been successfully practised in separate colonies, while we were subject to British dominion. Large issues were of consequence necessary, and the paper currency multiplied, of course beyond what was required for the purposes of a circulating medium. To raise the value of our paper money, nevertheless, and to redeem it, will not, we are persuaded, be difficult." They only ask for time and patience, and fix on the first day of January, 1797, or about eighteen years for the full payment of their debts.

A few months after, when the depreciation of the currency kept on increasing, that illustrious Congress raised its voice again, in the following appeal:—

"America, almost totally stripped of commerce, and in the weakness of youth, as it were, with 'a staff and a sling only,' dared, 'in the name of the Lord of Hosts,' to engage a gigantic adversary prepared at all points, boasting of its strength, and of whom even mighty warriors 'were greatly afraid.' Our enemies prosecuting the war by sea and land with implacable fury, taxation at home and borrowing abroad, in the midst of difficulties and dangers, were alike impracticable. Hence the necessity of new emissions."

The whole of this address, too long for insertion, is evincive of strong anxiety, but without despondency. On the contrary, it speaks throughout the language of patriotic firmness never for a moment admitting a doubt of success. Neither does it attempt to disguise the appalling state of affairs. The naked truth is told, and a remedy proposed for every calamity. Among the numerous vexations which annoyed Congress, loud and frequent complaints refer to monopolizers, and the prodigality of the inferior officers, both civil and military.

New emissions continued until two hundred millions of dollars were in circulation at one time; that is to say, seven or eight times as much as was wanted for a circulating medium: consisting, too, of bills bearing no interest; having no specific fund appropriated for their redemption; nothing in short, but the promises of a government ill organized, and in a state of revolution. They could not fail to break down. No patriotism, however ardent, could sustain them. Yet the brave men, at the head of affairs, went into a computation suited to allay the fears of the people, and showed by a State Paper, which will be presently cited, that resources belonged to the country sufficient to meet all demands.

But the last day of the usefulness of Continental Paper Money was fast approaching. The bills of the individual States had generally become so worthless, that even Congress would not receive them into its treasury. Congressional bills were, however, kept in circulation at a great discount

until May, 1781, when they fell to five hundred, and subsequently to one thousand paper dollars for one silver, and ceased as a currency. Two hundred millions lost all their value, and were laid aside.

The annihilation was so complete, that barbers' shops were papered, in jest, with the bills; and the sailors, on returning from their cruise, being paid off in bundles of this worthless money, had suits of clothes made of it, and with characteristic lightheartedness turned their loss into a frolic, by parading through the streets in decayed finery, which in its better days, had passed for thousands of dollars!

The campaign of 1781 was carried on in solid coin; nevertheless the bills of a few of the States still lingered in circulation. I have in my possession the receipt of Thomas Knox, dated at Boston in that year, for three thousand three hundred dollars, for piloting in and out of port, a distance of nine miles each way, the French frigate *L'Astree*, commanded by the celebrated *La Perouse*. The specie price was twenty dollars.

I possess, likewise, original documentary papers, in tabular detail, showing a loss, by the public chest of Rochambeau's army, of one million six hundred and sixty-one thousand eight hundred and seventy-two dollars. The Intendant of the Army endorsed on the bundles—"This paper being at present valueless, the loss must be charged to the king." But it must be recollected, that for some years its most favourable discount was forty for one.

In General Washington's account current with the United States, the last transaction in paper currency is dated May, 1781.

The discredit and final rejection of that money was owing, in a great measure, to the illiberal terms of the confederation. Had Congress possessed, unfettered, the power of taxation and levying of imposts, the emissions would have been moderate, and somewhat proportioned to the specie in the country. But what could they do under such a compact as follows:

1st. They were authorized to recommend to the several States, and nothing more, *the consent of every one of which* was necessary, to give legal sanction to any act so recommended.

2dly. They could not assess or levy taxes.

3dly. They had no power to execute punishments, except in the military department.

4thly. They could not regulate trade.

5thly. They could institute no general judicial powers.

6thly. Neither could they regulate public roads, or inland navigation.

With such an inefficient form of government, they failed in almost every appeal for pecuniary aid. They were even denied, by the single veto of *Rhode Island*, the establishment of an impost of only five per cent. on imported goods, which after great difficulty and delay, had been ratified by all the other States. Unanimity being a constitutional requirement, that measure, so obviously necessary, so moderate in its amount, so gentle and equal in its operation, was defeated by the negative of the smallest State in the confederation. Nor could the entreaty of Congress, contained in a long argumentative report, addressed to *Rhode Island*, and drawn up by Alexander Hamilton, James Madison, and Thomas Fitzsimmons, cause that State to retract. A letter from Benjamin Franklin, on this subject, dated Passy, December 23, 1782, says: "Our people certainly ought to do more for themselves. It is absurd, the pretending to be lovers of

liberty, while they grudge paying for the defence of it. It is said here, that an impost of five per cent. on all goods imported, though a most reasonable proposition, had not been agreed to by all the States, and was, therefore, frustrated."

Sustaining the bills of credit, by the public, under such circumstances, and for the length of time they did so, appears to me, one of the most praiseworthy passages in our revolutionary history, pregnant alike with honor to our forefathers for their confidence in the illustrious administrators of the government, and with fidelity to the glorious cause for which they fought. And this reliance on the honorable intentions of the Congress of that day is fully vindicated by a manifesto issued by that body, which, although inserted in a former essay on this subject, is, from the noble sentiments it contains, worthy of a second transcript here.

"Suppose," says the Congress of 1779, "that at the conclusion of the war, the emissions should amount to another hundred millions; then the whole national debt of the United States would be three hundred millions. There are at present three millions of inhabitants in the thirteen States. Three hundred millions of dollars divided among three millions of people, would give to each person one hundred dollars. And is there," they ask, "an individual in America, unable, in the course of eighteen or twenty years, to pay that small sum? Again, suppose the whole debt assessed, as it ought to be, on the inhabitants, in proportion to their respective estates, what would then be the share of the poorer people? Perhaps not ten dollars! And if twenty years be taken to pay the debt, the number of inhabitants will be more than doubled, and the ability to pay increased, of course, more than two-fold."

This encouraging language was held on the 13th of September, 1779. Subsequently they recur to the same subject thus: "Paper money is the only kind which will not make unto itself wings and fly away. It will remain with us; it will not forsake us." They then repeat their conviction of the ability of the country to redeem it; and having pledged for the support of independence their lives, their fortunes, and their sacred honour, the same pledge is given to the public for the full payment of all their paper emissions. A contrary sentiment is rejected with scorn; and proceeding in their address, with the earnestness of honest men, they speak of a bankrupt, faithless republic, as a novelty in the political world. "It would appear," say they, "like a common prostitute among chaste and respectable matrons. The pride of America revolts from the idea. Her citizens know for what purpose these emissions were made, and they must be redeemed. He must entertain a high opinion of American credulity who supposes the people capable of believing that *all* America will act against the faith, the honour, and the interest of *all* America. Knowing, as we all do, the value of national character, and impressed with a due sense of the immutable laws of justice and honor, it is impossible that America should think, without horror, of such an execrable deed."

Thus spoke the band of able statesmen who governed in those days. No thought of repudiation was for a moment tolerated. They had created the paper currency, they suggested a feasible scheme for its redemption, and they held the honest purpose of executing that scheme. But they had no power. The jealousy of the States counteracted their good intentions. What *THEY* could not *redeem* themselves, was assumed by a generous constituency. The people who bore the brunt of an eight years'

war, and victoriously established independence, sustained, without a murmur, the whole tax, and voluntarily reduced to utter nothingness, the greatest item in the cost of the revolution; and thus waived all claim upon posterity for its payment.

This was, undoubtedly, a severe tax; yet, when examined with care, it will be found less heavy than it seems at first sight. Let us take the largest sum, by which the people could ever have been affected, say three hundred millions, at twenty for one, which is only half the rate fixed by Congress. Twenty for one on three hundred millions, will give fifteen millions of sound money. These fifteen millions having been used as currency for six years, give an annual average of two millions and a half. That sum, among a population of three millions, would not be a poll tax of one dollar; or if the three millions of inhabitants be divided into families of six persons each, making five hundred thousand families, the annual loss per family would be only five dollars! In all probability the *real* loss was less to many, than this proportion; because the bills passed with great activity, from hand to hand, to their last days, even when five hundred for one; never remaining locked up, nor long withdrawn from circulation. They were divided too into small sums, from one dollar to eighty, and always convertible at the current exchange, into every kind of real and personal property; and in their hourly rapid passage, leaving with each temporary possessor, the trifling loss only of their daily depreciation.

No system of credit, as we all now know by sad experience, can be made durable, when in the shape of currency the issues exceed the wants of a medium of trade, or when in the more permanent form of bonds, or certificates of public security, they come forth, without a competent tax to pay the interest, and a sinking fund to discharge the principal. The over-issues in Continental money being excessive, fell off in value, of course, while as a natural consequence, property of all kinds rose in proportion. This increase of price in goods, was attempted to be remedied in most of the States, by acts of limitation, fixing under high penalties the maximum at which property should be sold. These ordinances were rigidly instituted. Stores were broken open by authorized committees, and goods seized and sold at the limited legal prices; while the owners stood accused before the public of a design to depreciate the currency, and were called Tories and speculators, and otherwise stigmatized as enemies to their country.

But those high-handed persecutions and robberies did not arrest the depreciation on one side, nor the appreciation on the other. Money sank and goods rose. Yet an army of more than thirty thousand men, and a small navy, were supported; the wheels of government kept in motion, and the enemy kept at bay! How could such paper funds sustain such an expense? A writer in the year 1779, says, "posterity will hardly credit it; but," continues he, "the universal rage and zeal of the people, through all the States, for an emancipation from a power that claimed a right to *bind them in all cases whatsoever*, supplied all defects, and made *apparent* impossibilities, *really* practicable."

Another great error was the making this money a legal tender. It was a source of immense injustice between debtor and creditor. It favoured most, in the language of a cotemporary, the slack, the dissipated, the lazy and dilatory, who paid their creditors often at one-twentieth of the value of the debt when it was contracted. This sad expedient was suggested

to the States by Congress itself. But that body, which consisted of about fifty members, whose great abilities and spotless integrity stand unimpeached, had the candor to confess their mistake, and urged upon the States an immediate repeal, which was, after much solicitation, effected; yet not until thousands of fortunes had been ruined, including chiefly the most generous and patriotic; while the benefit went alone to the avaricious and idle.

The people "worried and fretted" by tender-laws, limitation of prices, and other compulsory means used by the States to force the circulation, and bolster up the value of paper, occasionally appeared heartless and out of patience. That feeling prevailed especially at the time when Congress, in 1780, recommended a monthly tax of fifteen millions, payable in specie or in paper, at forty for one, and was the cause of its failure. The intention of this act was to destroy the bills as they came in, and to issue other bills at par, bearing an interest of six per cent., to an amount not exceeding a twentieth part of the nominal sum thus brought in to be destroyed.

But the community had become momentarily paralyzed, and turned a deaf ear to all new projects. They stood, as an eye-witness says, "amid impending destruction, when all occupations of town and country were nearly at a stop." Government, not having the power to compel the payment of taxes, could only entreat or menace. In vain, however, did they proclaim, threaten, villify, and decree, that "whoever should refuse to receive in payment Continental Bills, should be deemed and treated as an enemy of his country, and be precluded from all trade and intercourse with the inhabitants; in other words, be outlawed: in vain did they accompany these threats with penal, tender and limitation laws, associated too with military force; all proved ineffectual. This brow-beating and coercion seemed, says Peletiah Webster, who wrote in 1781, "like water sprinkled on a blacksmith's forge, which indeed deadens the flame for a moment, but increases the heat and force of the internal fire." One instance of arbitrary power flowed from those laws which would disgrace the annals of an absolute government; and it was exercised too by Pennsylvania. The General Assembly, on the 25th March, 1780, issued one hundred thousand pounds of paper bills founded on the faith of the State, on some city lots in Philadelphia, and on the Province island at the mouth of the river Schuylkill, which at that time belonged to the State [hence the emission was called island-money]. This issue was followed up by an act, dated December 23d, of the same year, making the bills a legal tender. The penalty for not taking them in payment of goods, lands, &c., was for the first offence, forfeiture of double the sum offered; and for the second offence, a confiscation of half the offender's lands, goods and chattels, and imprisonment of his person during the war.*

Bad as the Continental Bills had become in the latter period of their existence, they always bore the stamp of nationality, and passed currently at the exchange of the day throughout the land; whereas the emissions of the States, made on their individual responsibility, and at various rates of exchange, were not received beyond the limits of each State; so that one State would not take the bills of another State. They were only used for municipal purposes and local trade, as wampum had

* This debt was subsequently paid in full.

been in the early days of Massachusetts and other parts of New England, bundles of tobacco in Virginia, and stamped wood or leather elsewhere.

Those persons who happened to be the last holders of the Continental Bills, put up quietly with their loss. The mighty monster, as that expiring currency was called in those days, departed unlamented. An attempt, which proved abortive, was made some time after to dig up its skeleton, but it never was resuscitated. Its services when alive were incalculable; and it cannot be too often repeated, that it saved the State, and gained our independence. It was the cheap price, and our emancipation the rich purchase. To posterity was that independence transmitted, by those who achieved it and paid for it by bearing the whole loss on the paper currency, which was the principal item of its cost.

The Continental Money endured for nearly six years, and during that long period worked as a most powerful state-engine; and was, says a writer who saw its operation, "a prodigy of revenue, and of exceeding mysterious and magical agency. Bubbles of a like sort, in other countries last but a few months, and then burst into nothing; but this held out for years, and seemed to retain a vigorous constitution to its last; for its circulation was never more brisk than just before it died at five hundred for one! and when it expired, it departed without a groan or struggle, or being in the least lamented."

As I have already observed, the loss was divided and subdivided into such fractional parts during the five or six years' circulation of the millions of paper dollars, that they were laid aside, not only unpaid and unhonoured, but even unwept. The people were tired of the daily variation of prices, and felt how ridiculous was the state of a currency which required five hundred dollars in paper, to pay for a breakfast that could be bought for a silver half-dollar. It carried no regret with it, and seems doomed to sleep in silence, unfriended and unsung; unless, indeed, some attempt be now and then made to awaken a transient touch of sympathy, such as I aim at in this humble sketch.

With it disappeared that unjust and erroneous legislation of making paper money a legal tender. Happily, such tyranny cannot return: the Constitution of the United States forbidding the enactment of laws making any kind of money a tender, except gold and silver.

Vice and immorality were greatly encouraged, no doubt, by that ever-varying currency. This I grant, yet something I hope to offer in extenuation.

We cannot deny that, during the revolution, laws were broken, morals debased, and the nation turned into a gambling community, which upset the fortunes of thousands, broke down trade, paralyzed industry, and scattered ruin far and wide. Our own historians have dwelt in sorrowful and emphatic terms upon those sad times; nor are the notices of foreign authors less instructive and interesting. Gordon, in his history of the Independence of the United States, says, that without paper money the Americans could not have carried on the war. The public benefit of it in that instance will compensate, in the estimation of patriotic politicians, for the immense evils of which it has otherwise been the occasion. The tender-laws on one hand, and depreciation on the other, rendered it the bane of society. All classes were infected. It produced a rage for speculation. The mechanic, the farmer, the lawyer, the physician, the member of

Congress, and even a few of the clergy, in some places, were contaminated. The morals of the people were corrupted beyond any thing that could have been believed, prior to the event. All ties of honour, blood, gratitude, humanity and justice, were dissolved. Old debts were paid when the paper money was more than seventy for one. Brothers defrauded brothers, children parents, and parents children. Widows, orphans, and others, were paid for money lent in specie, with depreciated paper, which they were compelled to receive. A person who had been supplied with specie, in the jail of Philadelphia, while the British had possession of the city, repaid it in paper at a tenth part of its value.

Stedman, an officer in Cornwallis's army, who wrote an account of the American War, treats this subject copiously and impartially. I omit, however, some extracts that I had prepared, in order to introduce the opinion of a distinguished Frenchman, made up from personal association with the American people when in the height of the Revolutionary War. But before I transcribe his judgment of our countrymen, I may remark, that at one period of the contest there was, as is conceded in the Journals of Congress, an absence of exertion approaching to dangerous indifference, and which elicited strong appeals from that body. This apathy attracted the attention of foreigners employed in our army, and became the subject of an official communication from one of them, Mons. Du Portail, who was Colonel in the French service, and Brigadier General in the American army. He resided many years in Pennsylvania after the peace of 1783, and in 1791 returned to France, where he became minister at war. The despatch, from which I take the following extracts, is dated at the encampment at White Marsh, 12th November, 1777, and is addressed to the Comte de St. Germain, the then minister of war to Louis XVI., and is marked private. The following is a translation of them:—

“Will, or will not, the Americans obtain their independence? In France, where things are estimated according to the naked facts of passing events, they will answer affirmatively. But we, who see how things are managed here, think differently. To be candid, I must say that it is not owing to the good conduct of the Americans that the campaign closed with tolerable success, but rather in consequence of the blunders committed by the English.”

“Before the war the Americans, without living in luxury, possessed every thing necessary to make life agreeable and happy. They passed a great part of their time in smoking, drinking tea and spirituous liquors. Such was the customary habits of the people. Is it surprising, then, that a sudden change from such effeminacy to the rugged and painful duty of a warrior, should lead them to prefer the yoke of the English, to freedom bought at the cost of all those comforts of life? What I am about to say, my lord, may surprise you, but such is the fact: this is a sluggish people, without energy, without vigour, without affection for the cause in which they are engaged, and which they sustain simply by the impulse or influence which put them in motion at the outset. There is an hundred times more enthusiasm for the revolution, in any coffee-house whatever in Paris, than in all the United States put together. It will, therefore, be expedient, in order to finish the revolution, that France should supply this country with every thing necessary, so as to relieve the people from the burden of the war. It will cost France a few millions, but they will be well employed in annihilating the power and authority of the English,

who, when stripped of their colonies and their commerce, will lose their greatness, and leave France without a rival."

"Upon duly considering the general aspect of affairs, it appears to me that what is passing in America is suited to disgust Europeans, and prevent their interfering in the concerns of the colonies of this continent."

Such is the picture of our countrymen, drawn by a Gallo-American officer. I intended to have added some extracts from the French pens of Brissot de Warville, the Duke de Liancourt, and Messrs. Volney and Talleyrand; but I have already reached the limits usually assigned to papers communicated in this form, and will only add, in reference to Monsieur Du Portail's opinions, that his prejudice and ignorance may be found repeated and amplified in the writings of all the above named distinguished foreigners: whose fanciful theories, presumptuous prophecies, and absurd conclusions, have turned out, in the march of time, only the more glaringly false and preposterous, the one than the other! Those indolent Americans of Du Portail have continued to be, what they always were, intelligent, brave, industrious and enterprising. Some passing relaxation of revolutionary zeal may have happened, when the ardour of the people fell short of the wishes of their more eager rulers; but, in the main, our countrymen have not been sluggish, and certainly were never indifferent on the subject of their independence. How could it be so, when, with the "go ahead" motto in their hearts and in their actions, they have built up an empire as powerful and populous, at this day, as was France itself, when our fathers first landed on the shores of Virginia and on the rock of Plymouth? A space of time from that period to this, for the creation of a nation of nearly twenty millions of people, not greater than two lives of Russian longevity!

Our own Revolutionary Congress, as we have seen, looked "with horror on the execrable deed" of leaving their bills unpaid. More sensitive on this head than their constituents, they trusted to posterity for their honourable discharge: that posterity, nevertheless, down to the present generation, have never bestowed a thought upon the pledged faith of their illustrious fathers. They neglected, even in the palmy days of "high built abundance," with "heap on heap" in their Treasury—those days when the States, individually, were solicited to relieve the general government of its vast surplus revenue—they neglected, even then, to look back upon that just debt, and to remember favourably those bills that stood guard, as it were, in times of imminent danger; answering the calls of every department of government and of the people in their various occupations; carrying us through the perils of a long war, with pledge upon pledge that they should be honourably paid in the calmer days of peace. They did nothing! nothing!!

But has not "*Honour*," "the moral conscience of a State," been sometimes forfeited elsewhere as well as among us? Painful as this confession is, in reference to our own country, similar examples of shame and reproach, the result, not of dire necessity, but of high-handed fraud, may be traced in the history of other countries. I do not place them here, however, in vindication of ourselves, but to disqualify those European nations, where they have occurred, from pointing the finger of scorn at America.

In Burnet's history of his own times, we find that Charles II. shut up his exchequer for two years, and scattered dismay and ruin throughout his

kingdom. Actions commenced against debtors were not allowed to proceed: bankers were broken, and trade paralyzed. The same historian alludes to the disastrous explosion of the South Sea Company, with which may be coupled John Laws's Bank and Mississippi land scheme, the shares of which, in 1718, rose to twenty times their original value, and then sank to nothing. But two operations by France, upon a stupendous scale, are precisely in point, and possess a perfect resemblance to Continental Money, both for the good they effected, and for their subsequent extinction without being redeemed. The first was an emission by the constituent assembly of France, in 1790, of a paper money called *assignat*, which, although based, in general terms, on the proceeds of the sale of the confiscated goods of the church, were so lavishly issued, as to increase to the incredible sum of forty thousand millions of livres, when they depreciated to nothing. Then followed a second kind of paper money, called *mandate*, which even the guillotine of Robespierre could not sustain. They were founded, like the assignat, on confiscated property; and two thousand four hundred millions of livres were issued, which, after defraying the expense of one campaign, lost all their value.

Philip V., the first Bourbon prince who reigned in Spain, left a debt of forty-five millions of piastres, which his successor refused to acknowledge, and it was left unpaid.

After the battle of the 12th of April, 1782, between De Grasse and Rodney, the shattered remnant of the French fleet, under the Marquis de Vaudreuil, came to Boston. Its outfit and re-embarkation of Rochambeau's army occasioned a vast expense, which was paid by bills on the French treasury. They were drawn at the customary usance of sixty days, but the government of France postponed their payment for twelve months; and to protect the merchants who had negotiated them, from damages, the king retained the bills, and forbade his notaries making any protest.

The men of 1776, upon whom cotemporary writers, in both England and France, have heaped so much opprobrium, and whom we, on the contrary, delight to honour and praise, were they better or worse than their descendants?

The general sentiment is, I think, that we are, at the present day, less strict in the observance of the moral duties of life; less moderate and honest in the pursuit of wealth; in short, that we are a degenerate race. But in all this I believe there is a mistake; and I will endeavour to show that we, of the living generation, stand for *good*, in a scale as well balanced against *evil*, as the men of the last century; and in the exercise of many virtues surpass them.

It is said to be an infirmity of old age, to estimate unfavourably "the sayings and doings" of the present time; and to refer back to the days of early life for bright examples in manners and morals. I am an old man, and I do not attest by my judgment or feelings, the truth of that adage. The present race, the men now in active influence, who form this great nation, are said to have declined in moral worth; to have dishonoured by cunning and crime the cause of republicanism, and disgraced the good name which their revolutionary fathers had established and transmitted.

I offer the following vindication.

My recollection goes back pretty distinctly more than sixty years, and I can aver that crimes of as deep a dye were committed in those days, as

strike us with such horror when they now occur. But there did not exist then a legion of newspapers, with agents in all directions, eager to collect, exaggerate and publish; and of course they were not circulated. The utmost extravagance of our times in speculation by *corporations* even, can be matched by *individuals* who lived fifty years ago. Public securities were made to vary from two to twenty-eight shillings on the pound; private associations were formed in all the chief towns to forestall more than half the capital of the first Bank of the United States, by purchasing as high as thirty per cent. advance on the par value, the funded debt which was to constitute the larger part of the stock of that bank. The excitement was great; the project failed, and extensive ruin followed.

But extravagant as were the operations in stocks, they fell far short of the speculations in land. Half of Western New York, large tracts in Pennsylvania, North Carolina, and elsewhere, amounting to many millions of acres, were purchased by individuals as monopolists. Phelps and Gorham from the east, Morris, Nicholson, Greenleaf, Wilson, and others, in the middle States, making Philadelphia their head quarters, acquired and held for a short time such vast possessions, that the debts of Nicholson, yet unliquidated, are said to amount to twelve millions of dollars. Barry and Law aimed at purchasing the whole City of Washington, in 1798. Wilson gave a single bond for a million two hundred thousand dollars, bearing six per cent. interest; and that was but one item in his vast negotiations. The immense loss by these speculators, all of whom failed, did not fall short, perhaps, of those by banks in our times; and those losses were inflicted upon a nation of less than five millions of inhabitants. Robert Morris, too, whose public career had been so splendid, and whose downfall may be mentioned at this distant period without indelicacy, since it is matter of history, spent four years a prisoner in our debtor's apartment, while Wilson, whose ruin was as complete, died in confinement for debt in North Carolina. All their colleagues and adjuncts went to destruction, to the incalculable loss of the very many who trusted them.

What shall we say of lotteries, then a universal expedient for raising money; licensed gambling shops authorized by every State in the Union, and now as universally suppressed.

In politics, slow as we may be in believing it, there was, half a century ago, more violence, more marked separation in social life, more virulent hatred—infinity more, than now. What aged man can forget the heart-burning and outrage before and during the days of the black cockade, when that badge was worn as the signal of defiance from one party to the other! Then, were the presses of Peter Porcupine and his opponents in full action, and licentious to a degree never yet surpassed. In Congress, on the floor of the House of Representatives, vulgar scuffling, and indecent personalities, disgraced that body. We may name as a prominent example, the contest between Matthew Lyon and Griswold. Burr in the Senate, and Hamilton in the Cabinet, agitated the whole nation by their violent jarring, which ended in the death of the latter by the hand of the former. Compare the riotous elections of those days when federalism and anti-federalism engendered such party heat, with the quiet ballot of the great national election of 1844, when more than two millions and a half of votes were given, without commotion or disorder.

And how can we sufficiently congratulate ourselves on the improvement in temperance ! None can estimate its importance so well as the aged. Fifty years ago, it was no disgrace for young men to visit a party of ladies stupified or elevated by wine. Modern manners would not tolerate this. Male servants were generally given to drunkenness : and until arrested by temperance associations, intoxication was threatening us with universal sway.

But it is in religion that the most impressive and most salutary reformation has taken place. This is attested by the great increase of piety, and consequent increase of churches. Those holy temples now filled with devout attendants, were then few in number and sadly neglected. At the period of our revolution, the superstition and cruelty of witchcraft was only passing away, to be succeeded by religious indifference, and even rank infidelity.

Recollect, for a moment, Frederick of Prussia, surrounded by Voltaire, D'Argens, Maupertuis, and in correspondence with D'Alembert and the Parisian encyclopedists ; in England, Hume, Godwin, and his wife, Mary Woolstoncraft ; in America, Thomas Paine ! All uniting to deride and destroy christianity, by ridiculing its ministers and holy doctrines, in writings of unrestrained freedom ; by unsettling the belief of the religious, and confirming the unfaithful ; by presumptuously putting man's feeble reason in the place of divine revelation.

Set in contrast with those licentious times, the awakened piety of this day, in every church of every sect. Crowds of worshippers testify to the truth of their amendment, by regular and zealous devotion in those seats, which were formerly deserted. This salutary change will check the progress of crime. It has checked it. Isolated instances of high offences are no proof to the contrary. The people collectively become more sober in their habits, and more serious in the worship of God, will find those plague-spots which continue to disfigure their moral character, gradually removed, by the joint influence of temperance and religion.

One distinctive mark of refined civilization has been allowed to form a national trait, by universal consent, abroad and at home ; namely, the deference paid to woman.

Every where, within the wide range of our country, she is defended and protected. It is a generous virtue, which foreigners agree, one and all, to allow us. A female may traverse the country alone, and visit every point of the compass, in perfect personal security, and be certain of meeting always with attention and respect ; having no other protector, in the steamers and on rail-roads, than their captains and agents. This is notorious and of every day occurrence. Virtuous women, young and handsome, start alone, and without fear, from the Missouri, to descend to New Orleans in the south, or wend their way to the Atlantic, up the Ohio, amid a motley company of entire strangers, and thus traverse thousands of miles, unapprehensive of rudeness or interruption.

In conclusion, let us hope that this improvement in morals, will eventually act as a corrective on the temporary defalcations in the public engagements, which now exist in parts of our country ; ever bearing in mind that at the adoption of our national Constitution, there was a public debt of ninety-four millions, the interest on which had not been paid for six years, and the principal was currently sold at the reduced price of twelve dollars for one hundred ; yet the whole was paid at par. A similar

redemption awaits, I trust, the depreciated State debts of the present day.

The paper money of the revolution, however, was of a character wholly dissimilar. It was a depreciated medium almost during its whole existence ; and having sunk gradually to nothing, could never possess the claim for redemption that belongs to a bond, for which full value, as expressed on its face, was paid to government.

But while that artificial currency lasted, it was a happy illusion, which worked the miracle of reality. Without its agency, we should have been subdued, and have crept along, at a colonial pace, as Canada has done. Without it, the valley of the Mississippi would have remained a wilderness ; the Spaniards would still have been masters of the great outlets of the south ; our manufactures would not have been allowed to reach even to the making of a hobnail, and our star-spangled banner would never have been unfurled.

The cause for which the defunct old Continental Money was put forth, had been gained. It has prevented our subjugation, and placed us on the proud eminence we now occupy. Those who bore its burden, when in transit, bore it cheerfully ; and made it the happy instrument of our national existence. In cherishing, with filial affection, the memory of those brave men, we may pass by their faults with indulgence ; always resolving to cling with constancy and love, to the privilege of self-government, which they thus won and transmitted.

THE MANUFACTURE OF IRON.

WE have been exceedingly desirous, and have taken much pains to present in this, our first number, an account from private sources, which might be relied upon, of the present flourishing condition of the iron manufacture in the several States of the Union ; and of the furnaces and forges about to be erected ; with a view to show its immense value and importance, and to prove, what we have no doubt is fully susceptible of proof, namely, that the time is not distant when we shall not only have a sufficient supply of every species of it for our home consumption, but that iron will ere long become an article of export from the United States.

Those of our readers who are conversant with the extended manufacture of this most useful of all the metals, without which we should fall back almost into a state of barbarism, will duly appreciate the difficulty which exists of procuring such a statistical account of the quantities and qualities now made in the United States, as would give an approximate knowledge of the immense augmentation which has recently taken place, and is now, in a much increased ratio, taking place, in almost every State of the Union.

Such measures, however, are in progress as will ere long, we doubt not, enable us to achieve much in this particular. Meantime, as it is very desirable to have comparative statements of its progress, and as we mean

A BIOGRAPHICAL SKETCH

OF THE LIFE OF DAVID RITTENHOUSE, ESQ., OF PHILADELPHIA,
A COTEMPORARY AND COMPANION OF FRANKLIN.

The village of Germantown, in the neighbourhood of Philadelphia, had the honour of giving birth to this distinguished philosopher, on the 8th day of April, 1732. His ancestry migrated from Holland about the middle of the eighteenth century.

The early part of his life was spent in agricultural employment, upon his father's farm in Montgomery County, Pennsylvania. It was there his peculiar genius first discovered itself. His plough, the fences, and even the stones of the field in which he worked, were frequently marked with figures which denoted his talent for mathematical studies. Upon finding that the native delicacy of his constitution unfitted him for the labours of husbandry, his parents consented to his learning the trade of a clock and mathematical instrument maker. In acquiring the knowledge of these arts he was his own instructor. They afforded him delight, inasmuch as they favoured his disposition to inquire into the principles of natural philosophy. Constant employment in the mechanic arts has proved the means in many instances of invigorating human genius. Franklin studied the laws of nature while he handled his printing types, and Herschel conceived the great idea of a new planet while he exercised the humble office of a musician to a marching regiment.

It was during his occupation in rural pursuits that our ingenious philosopher made himself master of Sir Isaac Newton's Principia, which he read in the English translation of Mr. Mott. It was thus likewise he became acquainted with the intricate science of fluxions, of which sublime invention he for awhile believed himself to be the author; nor did he know till some years afterwards that a contest had been carried on between Sir Isaac Newton and Leibniz for the honour of that great and useful discovery. What a mind was here! Without literary friends or society, and with but few books, he became, before he had reached his four and twentieth year, the rival of two of the greatest mathematicians of Europe.

While working at his trade of a watchmaker, he planned and executed an orrery, in which were represented the revolutions of the heavenly bodies, in a manner more extensive and complete than had before been done by any former astronomer. A correct description of this orrery, drawn up by the Rev. Dr. Smith, is published in the first volume of the Transactions of the American Philosophical Society, the instrument being purchased by the College in New Jersey. A second was made by the inventor after the same model, for the use of the College of Philadelphia, and forms part of the philosophical apparatus of the University of Pennsylvania, where it has commanded the admiration of the learned and ingenious from every part of the world.

The reputation he derived from the construction of this orrery, as well as his general character for mathematical knowledge, could not fail to attract public notice; but the discovery of his uncommon merit belonged

chiefly to his brother-in-law, the Rev. Mr. Barton, Dr. Smith, and Mr. John Lakens, an ingenious mathematician of Philadelphia. He yielded to their advice, and removed to that city in the year 1770. Here he continued for several years to follow his occupation as a clock and mathematical instrument maker, and in both branches of his business he excelled all others. His mathematical instruments have been esteemed by competent judges to have been superior in accuracy and workmanship to those of the same kind imported from Europe.

About the same time he removed to Philadelphia he became a member of the American Philosophical Society, his first communication to which was a calculation of the transit of Venus, as it was to happen on the 3d of June, 1769, in 40 deg. north latitude, and five hours west longitude from Greenwich. He was one of a Committee appointed by the Society to observe in the township of Norristown this rare occurrence, and he took the active part in the preparations which were made for that purpose. Of this Dr. Smith, who was also of the Committee, has left an honourable record in the history of that event, published in the first volume of their transactions.

"Mr. Rittenhouse's dwelling," says the Dr., "being about twenty miles north-west of Philadelphia, our other engagements did not permit Mr. Lakens or myself to pay much attention to the necessary preparations; but we knew that we had entrusted them to a gentleman on the spot (Mr. Rittenhouse) who united to a complete skill in mechanics, so extensive an astronomical and mathematical knowledge, that the uses, management, and construction of the apparatus were perfectly familiar to him. The laudable pains he had taken in these all important articles, will appear from the work itself, which he hath committed into my hands, with a modest introduction, giving me a liberty with it, which his own accuracy, taste, and abilities, leave no room to exercise."

To observe a phenomenon which had never been seen but twice before, by any inhabitant of our earth, which would never be seen again by any person then living, and on which depended many important astronomical consequences—and this by instruments of his own preparation, may well be conceived to have created in the mind of Mr. Rittenhouse the most intense interest.

The night before the long expected day was passed without much sleep; how great was the joy when they beheld the glorious morning sun, and the whole heavens without a cloud, for such is the description given by Mr. R. in the report referred to by Dr. Smith. In perfect silence, and with the most intense and trembling anxiety, they waited for the predicted moment of observation; it came! and brought with it all that had been predicted and anticipated! In the instant of the contact of the planet with the sun, the emotions of delight and joy were so great in our philosopher, his sensations were so exquisite and intense, as to prostrate his bodily strength, and cause him to faint away. This will readily gain credence with the sanguine inquirers after truth, who have known the extent of that pleasure which attends its discovery.

Soon after this event we find him acting as one of a Committee appointed to observe the transit of Mercury on the 9th of November in the same year. A minute history of these events, in which Mr. Rittenhouse acted so distinguished a part, is given in the Transactions of the American Philosophical Society, and have been received with great satisfaction by the

astronomers of Europe, contributing greatly to exalt the character of our then infant country for astronomical knowledge.

In the year 1775 he was appointed to deliver the annual oration before the society—the subject was the history of Astronomy! His language was simple, but the sentiments were ingenious, and in some instances sublime. It was delivered in a feeble voice, but it commanded the most profound attention and universal admiration from a crowded and scientific audience. Mr. Rittenhouse published many essays on his favourite science.

Talents so splendid, and knowledge so practical in mathematics, are uncommonly rare in any country, and are like mines of precious metals; nor was the State of Pennsylvania insensible to the treasure she possessed in the mind of Mr. Rittenhouse; she claimed him as her own, and soon put in requisition his extraordinary powers.

In the year 1779 he was appointed by the Legislature of that State, one of the Commissioners for adjusting a territorial dispute between Pennsylvania and Virginia; and to his talents, moderation, and firmness, were ascribed, in a great degree, the satisfactory termination, in 1785, of that once threatening controversy.

In 1784 he assisted in determining the length of five degrees of longitude, from a point on the Delaware, in order to fix the western limits of Pennsylvania. In 1786 he was employed in fixing the northern line which divides Pennsylvania from New York.

But the application of his rare talents and knowledge in these difficult and delicate matters of territorial limits, was not confined to his native State; for in 1769 he was employed in settling the limits between New Jersey and New York; and this closed his career, and constituted his farewell peace-offering to the union and happiness of his country.

In his excursions through what was then a wilderness, he invariably carried with him his habits of inquiry and observation; nothing in the mountains, soils, rivers, and springs, escaped his notice. It is to be lamented that we have no printed records of what he collected on these occasions. In the year 1791 he was chosen successor to Franklin, as President of the American Philosophical Society. In this, the most elevated station that philosophy can confer in the United States, his conduct was marked by its usual dignity and propriety. Never did the artificial pomp of station command half the respect which were accorded to his unassuming manners in the discharge of his official duties. They were uniformly characterized by ardour in the pursuit of science, urbanity and suavity of deportment, amounting almost to brotherly kindness; and his attachment to the interests of the Society was evinced soon after he accepted the chair, by a donation of eight hundred dollars.

His talents and information were not limited to mathematical or material science; his mind was a rich repository of the knowledge of all ages and countries. He had early and deeply studied most of the systems of theology. He was well acquainted with metaphysics. In reading travels he took great delight; from them he drew a large fund of knowledge of the natural history of the globe. He possessed an ear for music, and was fond of poetry, in both of which he occasionally indulged; but the more serious pursuits of his life prevented his devoting much time to their cultivation, though he often read the English poets, and was a great admirer of Thompson's Seasons, which, he said, combined philosophy and poetry.

However opposite to his other studies these may at first appear, they derive their perfection from the same extensive and accurate observations of the beauties of nature. He was intimately acquainted with the Dutch, the German, and the French languages; the two latter of which he acquired without the aid of a master. They opened to him the discoveries of foreign nations, and enabled him the better to pursue his favourite studies.

In speaking of Mr. Rittenhouse, it has been customary to regret his want of what is called a liberal education—but that we have lost any thing from this may well be doubted. Nature was his teacher, and his powerful mind was stored with knowledge which he had imbibed at her great fountain. Had the usual forms of education been imposed upon such a mind, instead of soaring to the heavens, and roaming at large amidst moving worlds, with his fondness for music and poetry, he might have spent his hours of study in the less sublime pursuit of the modulations of sound, or measuring the feet of Greek and Latin poetry.

Inventions and improvements in every art and science were frequently submitted to his examination, and his judgment upon them gave the tone to public approval or rejection. Wherever he went he met with demonstrations of public respect and private attention. But not to his own country alone was his reputation confined; his name was known and his character admired in every land where science dwelt and genius was cultivated. The degree of Master of Arts was conferred upon him by the College of Philadelphia in 1768. The same degree was awarded to him by the College of William and Mary, in Virginia, in 1784. In the year 1789 he received the degree of Doctor of Laws in the College of New Jersey—was elected a member of the American Academy of Arts and Sciences at Boston in 1782, and of the Royal Society of London in 1795. But if he was great in the higher walk of scientific knowledge, he was no less conspicuous in his religious and moral character. He had the most profound respect for sacred things; and we find, in some of his works, the happiest expressions of confidence in the beneficence and wisdom of Providence. In one of his orations, he says:—

“Should it please that Almighty power who hath placed us in a world in which we are only permitted ‘to look about us and to die,’ to indulge us with existence throughout that part of eternity which remains unspent, and to conduct us through the several stages of his works, *here* (alluding to the study of astronomy) is ample provision made for employing every faculty of the mind, even allowing its powers to be enlarged through an endless repetition of ages. Let us not, then, complain of the vanity of this world, and that there is nothing in it capable of satisfying us. Happy in those wants—happy in desires for ever in succession to be gratified—happy in a continual approach to the Deity.”

“I must confess I am not one of those sanguine spirits who seem to think that when the withered hand of death shall draw up the curtain of eternity, all distance between the creature and the Creator—between the finite and the infinite—will be annihilated. Every enlargement of our faculties—every new happiness conferred upon us—every step we advance towards the Divinity—will very probably render us more and more sensible of his inexhaustible stores of communicable bliss, and of his inaccessible perfection.” In another instance, in a letter to a friend, he says:—“Give me leave to mention two or three particular proofs of

infinite goodness in the works of creation. The first is, that of possessing goodness in ourselves; and it is inconsistent with all just reasoning to suppose that there is any thing good, lovely, or praiseworthy in us, which is not possessed in an infinitely higher degree in that Being who called us into existence. In the next place I reckon—the exquisite and innocent delight that many things around us are calculated to afford. In this light the beauty and fragrance of a single rose is a better argument for Divine goodness than a luxuriant field of wheat. For, if we *could* suppose that we were created by a malevolent being, with a design to torment us for his amusement, he must have furnished us with the means of subsistence, and either have made our condition tolerable, or not have left the means of quitting it at pleasure, in our power. Such being my opinion, you will not wonder at my fondness for what Addison calls the pleasures of the imagination. They are all to me so many demonstrations of infinite goodness.”

But the religion of Mr. Rittenhouse was not derived wholly from his study and admiration of the material world. He was a firm believer in the Christian revelation; and of this he gave many proofs, in the conformity of his life to the precepts of the Gospel. He once said to a friend, speaking of the truth and excellency of the Christian religion, “that a proof of its Divine origin might be seen in the fact, that the miracles of the Saviour differed from all other miracles, in being entirely of a kind and benevolent nature.” As the natural effect of his belief in the relation of the whole human race to each other, in a common father and redeemer, he embraced the whole family of mankind in the arms of his benevolence. The philanthropy of Mr. Rittenhouse did not consist simply in wishes for the happiness of mankind. He reduced this divine principle to practice, by a series of faithful and disinterested services to that part of his fellow creatures to which the usefulness of good men is chiefly confined. His country, his beloved country, was the object of the strongest affections of his heart. For her he thought, for her he laboured, and for her, in the hour of her difficulties and dangers, he mourned. The year of the Declaration of Independence produced no change of his political principles—for he had been educated a republican by his father. He ever avowed, with the sincerest pleasure, his secret attachment to an elective and representative form of government; and twenty years before his death he predicted the immense increase of talents and knowledge that would be produced by our republican institutions on the American character, and that the effects of our revolution would sow the seeds of a new order of things in other parts of the world. He believed political, as well as moral evil, to be intruders into the society of men—that general happiness was the original design and ultimate end of the Divine government; and that the time would come when every part of our globe would echo back the heavenly proclamation of “peace on earth, and good will to man.”

In the more limited circles of private life Mr. Rittenhouse commanded esteem and affection. As a neighbour he was kind and charitable. His sympathy was warm to distress of every kind, but it was more alive to the weakness, pain, and poverty of old age. As a friend he was sincere, ardent, and disinterested. As a companion he instructed his associates upon all subjects. His family constituted his chief society, and when the declining state of his health rendered his studies irksome, he passed

whole evenings of his time in reading to, or conversing with, his wife and daughters.

His house, and manner of living, exhibited the taste of a philosopher, the simplicity of a republican, and the temper of a christian. He was independent, and contented with an estate small in the estimate of ambition or avarice, but amply suited to all his wants and desires. He held the office of Treasurer of the State of Pennsylvania by an annual and unanimous vote of the Legislature, from the year 1777 to 1789, and during the whole period declined purchasing the smallest portion of the public debt of the State, thereby manifesting a delicacy of integrity known and felt only by pure and elevated minds.

In the year 1792 he was persuaded to accept the office of Director of the Mint of the United States, but his want of health obliged him to resign it in 1795. Here his conduct was alike highly delicate, for he sometimes paid for work done at the Mint out of his own salary, when he thought the charges would be deemed extravagant by the United States. His economy extended to the employment of his time in a useful manner—no man ever found him idle.

His countenance was remarkable ; it displayed such a mixture of contemplation, benignity, and innocence, that it was easy to distinguish him in the largest companies by a previous knowledge of his character. His manners were so universally benign and engaging that he seldom stopped an hour in travelling through the country without being followed by the good wishes of all who attended upon him. There was no affectation of singularity in anything he said or did ; he was remarkable for his uncommon modesty, so much so that he appeared to be wholly unconscious of his superiority of intellect. His constitution was naturally feeble, but it was rendered still more so by the sedentary nature of his studies, which often found him consuming the midnight oil.

On the 26th of June, 1796, he breathed his last, and at his request his body was interred in his observatory near his dwelling house, in the presence of a numerous concourse of his fellow citizens.

Thus lived and died this great and extraordinary man, who, like Newton, had soared into the highest regions of science—offering another proof that the humblest origin, and the most adverse circumstances, cannot limit nor control those wonderful gifts of nature, which enable their possessors, as if by a decree of Providence, to dive into the deepest mysteries of his creation.

But what shall we say of the anomaly that the subject of this memoir should have succeeded Franklin as President of the American Philosophical Society ! Franklin, who from a like obscure birth has left behind him a name never to be forgotten while the lightning shall gleam in the heavens ! and Rittenhouse, whose splendid genius and civic virtues entitle his memory to the highest honours his country can bestow.